

# Washington Correlator

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**Abstract** This report summarizes the activities of the Washington Correlator for 2013. The Washington Correlator provides up to 80 hours of attended processing per week plus up to 40 hours of unattended operation, primarily supporting Earth Orientation and astrometric observations. In 2013, the major programs supported included the IVS-R4, IVS-INT01, APSG, and CRF observing sessions.

## 1 General Information

The Washington Correlator (WACO) is located at and staffed by the U.S. Naval Observatory (USNO) in Washington, DC, USA. The correlator is sponsored and funded by the National Earth Orientation Service (NEOS), which is a joint effort of the USNO and NASA. Dedicated to processing geodetic and astrometric VLBI observations, the facility spent 100 percent of its time on these sessions. All of the weekly IVS-R4 sessions, all of the IVS-INT01 Intensives, and the APSG and CRF sessions were processed at WACO. The facility houses a Mark IV Correlator and the WACO DiFX correlator.

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## 2 Activities during the Past Year

The Washington Correlator continues to operate 80 hours per week with an operator on duty. The correlator has continued to function well unattended, allowing another 40 hours per week, on average, of extra processing.

The correlator staff continues the testing and repair of Mark 5 modules.

Intensive observations from Kokee Park and Wettzell were routinely transferred via e-VLBI during 2013. 24-hour sessions from both Hobart antennas, Katherine, Yarragadee, Warkworth, Ny-Ålesund, Fortaleza, Yebes, Noto, HartRAO, Wettzell, Tsukuba, Aira, Kashima, Chichijima, and Sintotu were also transferred by high-speed networks.

The USNO's high speed Internet capability was upgraded to a full 1 GB/s in 2013.

Table 1 lists the experiments processed during 2013.

**Table 1** Experiments processed during 2013.

Number of Sessions	Type
49	IVS-R4 sessions
12	CRF (Celestial Reference Frame)
4	APSG
2	AUST
228	Intensives

### 3 Staff

The Washington Correlator is under the management and scientific direction of the Earth Orientation Department of the U.S. Naval Observatory.

**Table 2** Staff.

<b>Staff</b>	<b>Duties</b>
David Hall	Chief VLBI Operations Division and Correlator Project Scientist
Daniel Veillette	VLBI Correlator Project Manager
Bruce Thornton	Lead Physical Science Technician
Roxanne Inniss	Media Librarian
Maria Davis	Physical Science Technician

### 4 Future Plans

Transition to the DiFX Software correlator began near the end of 2013 and should be completed by mid-2014.